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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/603,918

06/25/2003

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134101

4348

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07/23/2009

EXAMINER

HOSSAIN, TANIM M

ART UNIT

PAPER NUMBER

2445

NOTIFICATION DATE

DELIVERY MODE

07/23/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/603,918	<b>Applicant(s)</b> SEE ET AL.	
	<b>Examiner</b> Tanim Hossain	<b>Art Unit</b> 2445	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 March 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bearden (U.S. 2003/0086425) in view of Motoyama (U.S. 2003/0055952).

As per claim 1, Bearden teaches a method of managing one or more local resource properties, each having a value, by one or more managed network devices in a network comprising a network management system and a central data store, the method comprising the steps of: (a) monitoring the value of said one or more local resource properties (Bearden: paragraph 0143); (b) generating a learning event report comprising the value of at least one of the one or more local resource properties (Bearden: 0006, 0225); and (c) transmitting the learning event report to the central data store (Bearden: 0099); wherein the value of at least one of the one or more local resource properties is recorded at the central data store and made available to the network management system for asynchronous processing (Bearden: Figures 19A, 20A; paragraphs 0044, 0048, 0207, 0225, 0260). Bearden does not specifically teach that the values of the resource properties are uploaded by the managed devices independent of their retrieval by the network management system. Motoyama teaches that managed devices upload

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local resource properties to a local resource manager, which sends that information to a central management system, independent of retrieval by the system (paragraphs 0080, 0082, 0094-0098). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the ability to send status information automatically, rather than necessitating polling by a manager, as taught by Motoyama in the system of Bearden. The motivation for doing so lies in the fact that events may occur between polling times, in which case, it is beneficial to transmit that information, for example. Both inventions are from the same field of endeavor, namely network monitoring. Furthermore, the concept of independent information transmission of managed devices is eminently well known in the art of network monitoring (for example, when a status changes), such that it may also constitute a well known design choice to include this functionality.

As per claim 2, Bearden-Motoyama teaches the method of claim 1, but does not specifically teach that the central data store is a directory server. Official Notice is taken that it would have been obvious to one of ordinary skill in the art at the time of the invention to include that the storage system of Bearden is a directory server, as the use of a directory server to store database type information is common in the art. The motivation for doing so lies in the fact that the use of a directory server as storage would enable easy access of the data for reporting and viewing purposes.

As per claim 3, Bearden-Motoyama further teaches that the step of transmitting the learning event report to the central data store comprises the step of exchanging one or more Lightweight Directory Access Protocol messages (Bearden: 0207).

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As per claim 4, Bearden-Motoyama further teaches that the one or more local resource properties comprise one or more internal resource properties (Bearden: 0099).

As per claim 5, Bearden-Motoyama further teaches that the one or more internal resource properties comprise one or more properties selected from the group consisting of: managed network device hardware configurations including network modules installed; managed network device software installations including the types of software, software version levels, and the date when such information was last updated; and managed network device identity information including device name, serial number of the chassis or primary management processor, location information, type of device, network interface module name, network interface module slot number, network interface module part number, network interface module hardware revision level, network interface module serial number, and network interface module date of manufacture (Bearden: 0229).

As per claim 6, Bearden-Motoyama further teaches that the one or more local resource properties comprise one or more connectivity properties (Bearden: 0099).

As per claim 7, Bearden-Motoyama further teaches that the one or more connectivity properties comprise properties selected from the group consisting of the OSI network model layer 2 and layer 3 addresses of an edge device, identification of the network interface module where the edge device is connected, speed of a port where the edge device is connected, one or more network protocols being used by the edge devices or systems, and an administrative and operational state of the link connecting to the edge device (Bearden: 0008, 0225).

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As per claim 8, Bearden-Motoyama further teaches that the step of monitoring comprises the steps of detecting one or more learning events and periodically polling for a current value of the one or more local resource properties (Bearden: 0207).

As per claim 9, Bearden-Motoyama teaches periodically polling for a value, but does not specifically teach the use of specific 5 second to 5 minute intervals. Official Notice is taken that it would have been obvious to one of ordinary skill in the art at the time of the invention to include the specific intervals at which to poll for information, as specific polling intervals constitute design choices and would have been obvious to one of ordinary skill in the art to include.

As per claim 10, Bearden-Motoyama further teaches that the learning event report consists essentially of a value of at least one of the one or more local resource properties different from the value of the at least one of the one or more local resource properties of a preceding learning event report (Bearden: 0209).

As per claim 11, Bearden-Motoyama further teaches that the method further includes, after the step of detecting one or more learning events, assessing the priority of the learning event detected (Bearden: 0209).

As per claim 12, Bearden-Motoyama further teaches that the method further includes, after assessing the priority of the learning event detected, transmitting the learning event report to the central data store substantially immediately (Bearden: 0099).

As per claim 13, Bearden-Motoyama further teaches that the method further includes, prior to monitoring value of one or more local resource properties, the step of acquiring the most

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recent value of each of the one or more local resource properties from an internal memory when the one or more managed network devices are initialized (Bearden: 0143).

As per claim 14, Bearden-Motoyama teaches a managed network device characterized by one or more local resource properties, the managed network device being operatively connected to a network comprising a network management system, one or more managed network devices, and a central data store, the device comprising a local resource manager for: (a) monitoring the value of one or more local resource properties (Bearden: 0143); (b) detecting a change to the one or more local resource properties (Bearden: 0209); (c) generating one or more learning event reports, each learning event report comprising the value of one or more local resource properties (Bearden: 0006, 0225); (d) transmitting the one or more learning event reports to the central data store (Bearden: 0099); wherein the value of at least one of the one or more local resource properties is recorded at the central data store and made available to the network management system for asynchronous processing, wherein the value of at least one of the one or more local resource properties is uploaded by the one or more managed network devices, via a local resource manager, independent of retrieval of the value by the network management system (Bearden: 0099; Motoyama: 0080, 0082, 0094-0098).

As per claim 15, Bearden-Motoyama further teaches that the central data store is a directory server enabled to exchange one or more Lightweight Directory Access Protocol messages on the basis of obviousness (Bearden: 0207).

Claims 16-19 are rejected under Bearden-Motoyama on the same bases as claims 4-7 respectively, as the instant claims disclose limitations similar to those of the earlier claims.

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As per claim 20, Bearden-Motoyama further teaches that the managed network device is a switching device further comprising: (a) a plurality of network interface modules (Bearden: 0099); (b) one or more packet processors for performing packet parsing and ingress packet processing necessary to perform switching routing (Bearden: 0213); and (c) one or more memory devices for retaining one or more rules sets for switching and routing (Bearden: 0207).

As per claim 21, Bearden-Motoyama teaches an asynchronous network resource management system comprising: (a) at least one central data store (Bearden: 0207); (b) one or more local resource properties, each having a value (Bearden: 0143); (c) a plurality of managed network devices adapted to monitor the value of each of the one or more local resource properties and transmit the value of each of the one or more local resource properties to the at least one central data store (Bearden: 0207); and (d) at least one network management system adapted to retrieve the value of each of the one or more local resource properties from the at least one central data store, wherein the value of at least one of the one or more local resource properties is uploaded by the one or more managed network devices, via a local resource manager, independent of retrieval of the value by the network management system (Bearden: 0099; Motoyama: 0080, 0082, 0094-0098).

Claims 22-25 are rejected under Bearden-Motoyama on the same bases as claims 4-7 respectively, as the instant claims disclose limitations similar to those of the earlier claims.

### ***Response to Arguments***

Applicant's arguments filed on March 16, 2009 have fully been considered.

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a. With respect to the asynchronous processing of local resource properties by the network management system as claimed, paragraphs 0044, 0048, 0225, 0260, and Figures 19A and 20A of Bearden teach these concepts. The cited paragraphs disclose the collection of local resource information, and the reporting of that information. The information is used for statistical analysis, with respect to various network conditions. The figures disclose the network statistics for various time periods. Because the local resource properties are analyzed over certain time periods (as in the statistical analyses and graphs), and not necessarily as they arrive, it is respectfully submitted that this constitutes asynchronous processing, as claimed. The local resource properties are collected over time, which are then graphed, or analyzed statistically, for example. The contents of paragraph 0207 are at least discussed in pages 1-25 of the Provisional Bearden Application. For example, the collection of two types of MIB variables, polling using SNMP, CLI, or LDAP is discussed in sections 3 and 4.

Furthermore, Motoyama, in paragraphs 0094-0098, teaches the reception of data independent of certain polling intervals. This also constitutes asynchronous processing of local resource properties, as claimed.

As such, the claimed limitations are fully taught by Bearden-Motoyama.

b. Both inventions discuss a monitoring system in which managed devices are monitored, and the values with respect to this monitoring is sent to a central repository for managing. As such, the fields of the inventions are closely related. Also, Motoyama merely uses e-mail as its preferred method through which information is exchanged between the local resource manager and the central manager. It would be obvious to one of ordinary skill to employ the use of any known communication method to exchange this information.

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c. The amendment to the claims does not traverse the prior art. As discussed above, both Bearden and Motoyama teach the concept of transmitting the report to the central store, where the local resource properties are recorded and used for asynchronous processing. Further, Motoyama, in paragraphs 0080, 0097-0098 teaches that the managed devices upload local resource properties to the remote monitoring workstation, which then sends those properties to the central monitoring workstation. This then constitutes that the local resource properties are uploaded by the managed network devices, via a local resource manager, independent of retrieval of the value by the network management system, as claimed.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanim Hossain whose telephone number is (571)272-3881. The examiner can normally be reached on 8:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571/272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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